DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE

FILE P.I. # 0013596 **OFFICE** Design Policy & Support

Evans County
GDOT District 5 - Jesup **DATE** 11/02/2017
SR 169 @ Canoochee River 4 Miles N
of Claxton – Bridge Replacement

FROM for Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT **APPROVED CONCEPT REPORT**

Attached is the approved Concept Report for the above subject project.

Attachment

DISTRIBUTION:

Hiral Patel, Director of Engineering
Joe Carpenter, Director of P3
Albert Shelby, Director of Program Delivery
Darryl VanMeter, Assistant Director of P3/State Innovative Delivery Administrator
Kim Nesbitt, Program Delivery Administrator
Bobby Hilliard, Program Control Administrator
Cindy VanDyke, State Transportation Planning Administrator
Eric Duff, State Environmental Administrator
Bill DuVall, State Bridge Engineer
Andrew Heath, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Monica Flournoy, State Materials and Testing Administrator
Patrick Allen, State Utilities Engineer
Benny Walden, Statewide Location Bureau Chief
Andy Casey, State Roadway Design Engineer
Attn: Maggie Yoder, Design Group Manager
Brad Saxon, District Engineer
Troy Pittman, District Preconstruction Engineer
Dallory Rozier, District Utilities Engineer
Brian McHugh, Project Manager
BOARD MEMBER - 12th Congressional District

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
PROJECT CONCEPT REPORT

Project Type:	Bridge Replacement	P.I. Number:	0013596
GDOT District:	5	County:	Evans
Federal Route Number:	N/A	State Route Number:	169

SR 169 @ Canoochee River 4 Miles N of Claxton.

Submitted for approval:

Maggie Yoder — GDOT Concept/Design Phase Office Head & Office — Date: 8/11/17

Kimberly Nesbitt — State Program Delivery Administrator — Date: 8.24.17

Brian T. McHugh — GDOT Project Manager — Date: 8/4/17

Recommendation for approval:

* Eric Duff/AT — State Environmental Administrator — Date: 8/25/2017

* Christina D. Barry/AT — for State Traffic Engineer — Date: 9/6/2017

* Erik Rohde/AT — for Project Review Engineer — Date:

* Davida K. White/AT — for State Utilities Engineer — Date: 8/29/2017

* Byron Cowart/AT — for District Engineer — Date: 9/8/2017

* Bill DuVall/AT — State Bridge Engineer — Date: 9/11/2017

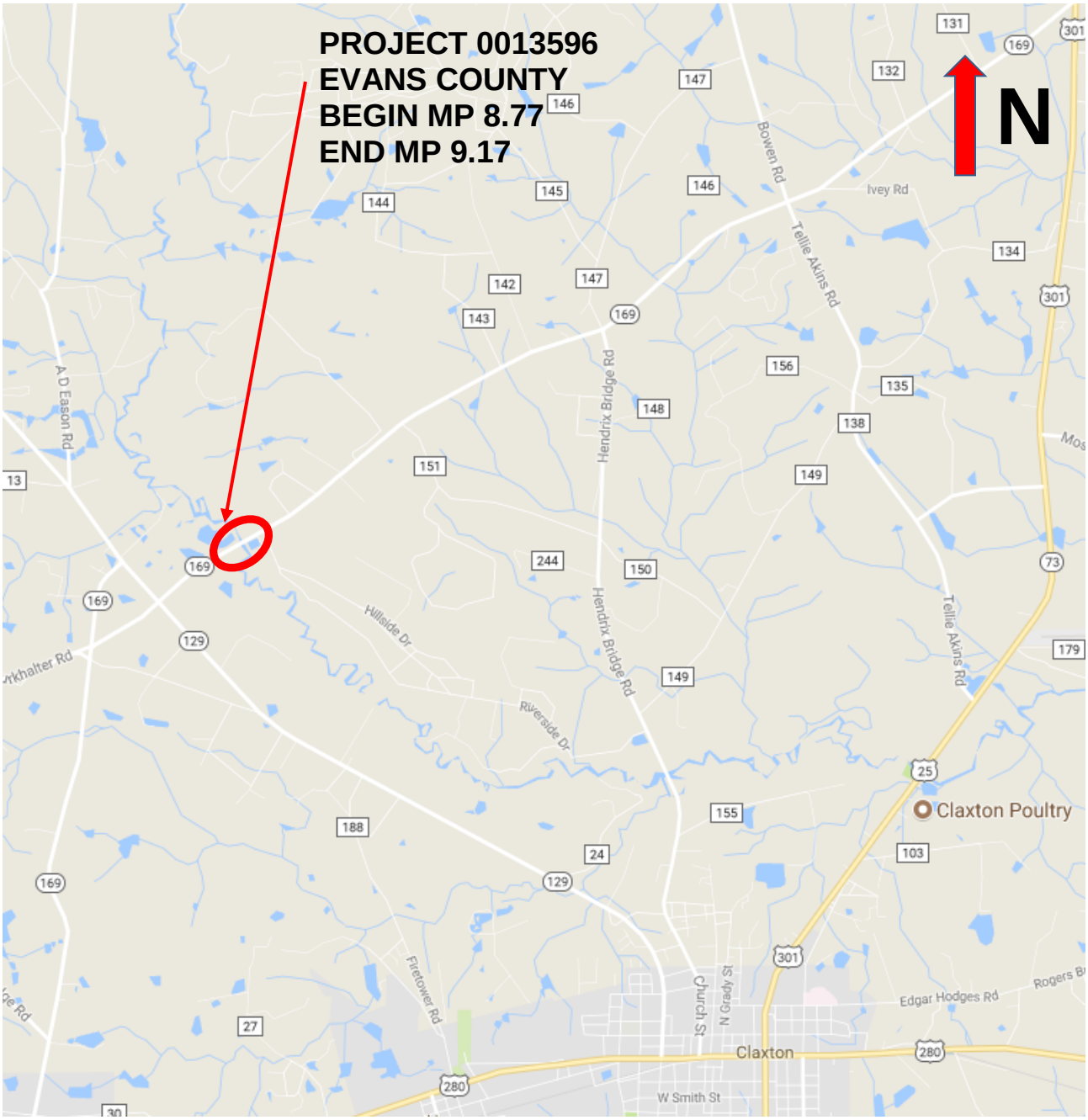
☐ MPO Area: This project is consistent with the MPO adopted Regional Transportation Plan (RTP)/Long Range Transportation Plan (LRTP).

☒ Rural Area: This project is consistent with the goals outlined in the Statewide Transportation Plan (SWTP) and/or is included in the State Transportation Improvement Program (STIP).

* Cynthia L. VanDyke/AT — State Transportation Planning Administrator — Date: 8/28/2017

* Recommendations on File

PROJECT LOCATION MAP



PLANNING AND BACKGROUND

Project Justification Statement: November 7, 2016
Prepared by Office of Planning

The bridge on SR 169 over Canoochee River, Structure ID 109-0015-0, was built in 1958. The bridge consists of eleven (11) spans of reinforced concrete deck girders (RCDG's) on concrete caps with concrete piles. This bridge was designed using an H-15 vehicle, which is below current design standards. The structure is currently posted for weight restrictions. The overall condition of this bridge would be classified as fair. The deck is in satisfactory condition with moderate concrete cracking. The superstructure is in satisfactory condition with minor cracks in the RCDG's and spalls with exposed rebar. The substructure is in fair condition with spalls with exposed rebar in the concrete piles. This bridge is classified as having an unknown foundation and therefore could be at risk for scour. Due to the posting of the bridge structure, the structural integrity of the bridge pertaining to the design vehicle, and the unknown foundation of the substructure, replacement of this bridge is recommended.

Existing conditions: The existing bridge, Structure ID 109-0015-0, is located 4 miles north of the City of Claxton. The bridge has a sufficiency rating of 45.5. Currently, the bridge structure is 26' in width (curb to curb) and is 417' in length. The bridge consists of two 11' travel lanes with 2' shoulders. The roadway approaching the bridge is roughly 26' – 28' in width with 11' travel lanes and varying shoulder widths. There are no existing medians, sidewalks, or bike lanes within the project. A power line runs parallel to the roadway on the west.

Other projects in the area: N/A

MPO: N/A - Project not in MPO **TIP #:** *N/A*

Congressional District(s): 12

Federal Oversight: ☐ PoDI ☒ Exempt ☐ State Funded ☐ Other

Projected Traffic: AADT 24 HR T: 6.0 %
Current Year (2015):1720 Open Year (2022): 1780 Design Year (2042): 1970

Traffic Projections Performed by: GDOT Office of Planning
Date approved by the GDOT Office of Planning:

Functional Classification (Mainline): Rural Major Collector

Complete Streets - Bicycle, Pedestrian, and/or Transit Standard Warrants:
Warrants met: ☒ None ☐ Bicycle ☐ Pedestrian ☐ Transit

Is this a 3R (Resurfacing, Restoration, & Rehabilitation) Project? ☒ No ☐ Yes

Pavement Evaluation and Recommendations
Initial Pavement Evaluation Summary Report Required? ☐ No ☒ Yes
Initial Pavement Type Selection Report Required? ☒ No ☐ Yes
Feasible Pavement Alternatives: ☒ HMA ☐ PCC ☐ HMA & PCC

DESIGN AND STRUCTURAL

Description of the proposed project: This Project will replace Bridge ID#: 109-0015-0 along SR 169 over Canoochee River 4 Miles North of Claxton.

Major Structures:

Structure	Existing	Proposed
ID # 109-0015-0	The existing bridge structure is 26' wide (gutter to gutter), 32.2' (out to out) x 417' in length. The typical of the bridge includes two 11' lanes with 2' shoulders.	The proposed bridge structure will be 36' wide (gutter to gutter) x approximately 420' in length. The proposed typical of the bridge includes two 12' lanes with 6' shoulders.

Mainline Design Features: SR 169/ Major Rural Collector

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	**2**		**2**
- **Lane Width(s)**	**11'**	**11'-12'**	**12'**
- **Median Width & Type**	**N/A**	**N/A**	**N/A**
- **Outside Shoulder**	**2'-3' Paved**	**8' Overall/ 4' Paved**	**8' Overall/ 4' Paved**
- **Outside Shoulder Slope**	**6%**	**6%**	**6%**
- **Inside Shoulder Width**	**N/A**	**N/A**	**N/A**
- **Sidewalks**	**N/A**	**N/A**	**N/A**
- **Auxiliary Lanes**	**N/A**	**N/A**	**N/A**
- **Bike Accommodation**	**N/A**	**N/A**	**N/A**
Posted Speed	**55**		**55**
Design Speed		**55**	**55**
Min Horizontal Curve Radius		**960'**	**960'**
Maximum Superelevation Rate	**8%**	**8%**	**8%**
Maximum Grade		**6%**	**6%**
Access Control	**Permitted**	**Permitted**	**Permitted**
Design Vehicle		**> SU**	**WB-67**
Pavement Type	**Asphalt**		**Asphalt**

*According to current GDOT design policy if applicable

Is the project located on a NHS roadway? ☒ No ☐ Yes

Design Exceptions/Design Variances to FHWA or GDOT Controlling Criteria anticipated:

FHWA or GDOT Controlling Criteria	No	Undeter-mined	Yes	Appvl Date (if applicable)
1. Design Speed	☒	☐	☐	
2. Design Loading Structural Capacity	☒	☐	☐	
3. Stopping Sight Distance	☒	☐	☐	
4. Horizontal Curve Radius	☒	☐	☐	
5. Maximum Grade	☒	☐	☐	
6. Vertical Clearance	☒	☐	☐	
7. Superelevation Rate	☒	☐	☐	
8. Lane Width	☒	☐	☐	
9. Cross Slope	☒	☐	☐	
10. Shoulder Width	☒	☐	☐	

Design Variances to GDOT Standard Criteria anticipated:

GDOT Standard Criteria	Reviewing Office	No	Undetermined	Yes	Appvl Date (if applicable)
1. Access Control	DP&S	☒	☐	☐	
2. Shoulder Width	DP&S	☒	☐	☐	
3. Intersection Sight Distance	DP&S	☒	☐	☐	
4. Intersection Skew Angle	DP&S	☒	☐	☐	
5. Tangent Lengths on Reverse Curves	DP&S	☒	☐	☐	
6. Lateral Offset to Obstruction	DP&S	☒	☐	☐	
7. Rumble Strips	DP&S	☒	☐	☐	
8. Safety Edge	DP&S	☒	☐	☐	
9. Median Usage	DP&S	☒	☐	☐	
10. Roundabout Illumination Levels	DP&S	☒	☐	☐	
11. Complete Streets Warrants	DP&S	☒	☐	☐	
12. ADA Requirements in PROWAG	DP&S	☒	☐	☐	
13. GDOT Construction Standards	Bridges	☒	☐	☐	
14. GDOT Drainage Manual					
15. GDOT Bridge & Structural Manual					

VE Study anticipated: ☒ No ☐ Yes ☐ Completed – Date:

Lighting Required: ☒ No ☐ Yes

Off-site Detours Anticipated: ☐ No ☒ Yes ☐ Undetermined
A detour is required for this project in order to build the proposed bridge on the existing alignment. Local government and emergency services have been contacted regarding support for the proposed detour. (See Attachment 4.) The proposed detour route utilizes SR 169, SR 129, and US 301/SR 73. The proposed detour is an estimated 17 miles in length.

Transportation Management Plan [TMP] Required: ☐ No ☒ Yes
If Yes: Project classified as: ☒ Non-Significant ☐ Significant
TMP Components Anticipated: ☒ TTC ☐ TO ☐ PI

INTERSECTIONS AND INTERCHANGES

Major Interchanges/Intersections: N/A

Intersection Control Evaluation (ICE) Required: ☒ No ☐ Yes

Roundabout Peer Review Required: ☒ No ☐ Yes ☐ Completed – Date:

UTILITY AND PROPERTY

Railroad Involvement: N/A

Utility Involvements: An aerial Canoochee EMC line exists along the west of the corridor. An overhead telecommunications line (AT&T) exists along the west of the corridor. There is also a duct attached to the West side of the bridge that appears to be telecommunications. This duct's activeness will be determined upon providing 1st submission plans to the owners.

SUE Required: ☒ No ☐ Yes ☐ Undetermined

Public Interest Determination Policy and Procedure recommended? ☒ No ☐ Yes

Right-of-Way (ROW): Existing width: 120 ft. Proposed width: 170 ft.
Required Right-of-Way anticipated: ☐ None ☒ Yes ☐ Undetermined
Easements anticipated: ☐ None ☒ Temporary ☒ Permanent ☐ Utility ☐ Other

Anticipated total number of impacted parcels:	3
Displacements anticipated: Businesses:	N/A
Residences:	N/A
Other:	N/A
Total Displacements:	0

Location and Design approval: ☐ Not Required ☒ Required

Impacts to USACE property anticipated? ☒ No ☐ Yes ☐ Undetermined

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern: N/A

Context Sensitive Solutions Proposed: N/A

ENVIRONMENTAL & PERMITS

Anticipated Environmental Document:

NEPA: ☐ PCE ☒ CE ☐ EA-FONSI ☐ EIS
GEPA: ☐ Type A ☐ Type B ☐ EER ☐ None

Level of Environmental Analysis:

☒ The environmental considerations noted below are based on preliminary desktop or screening level environmental analysis and are subject to revision after the completion of resource identification, delineation, and agency concurrence.

☐ The environmental considerations noted below are based on the completion of resource identification, delineation, and agency concurrence.

Water Quality Requirements:
MS4 Permit Compliance – Is the project located in a MS4 area? ☒ No ☐ Yes

Is Non-MS4 water quality mitigation anticipated? ☒ No ☐ Yes

Environmental Permits/Variances/Commitments/Coordination anticipated:

Permit/ Variance/ Commitment/ Coordination Anticipated	No	Yes	Remarks
1. U.S. Coast Guard Permit	☒	☐	
2. Forest Service/Corps Land	☒	☐	
3. CWA Section 404 Permit	☐	☒	Anticipate Nationwide or Regional Permit
4. 33 USC 408 Decision	☒	☐	
5. Tennessee Valley Authority Permit	☒	☐	
6. Buffer Variance	☐	☒	Need for a BV depends on field resource delineation and relationship of project footprint to the exemption area.
7. Coastal Zone Management Coordination	☒	☐	
8. NPDES	☒	☐	
9. FEMA	☒	☐	
10. Cemetery Permit	☒	☐	
11. Other Permits	☒	☐	
12. Other Commitments	☐	☒	Anticipate seasonal restrictions to in-water work for the protection of anadromous fish.
13. Other Coordination	☐	☒	Anadromous Fish Waiver from NMFS, Informal Section 7 with USFWS.

Is a PAR required? ☒ No ☐ Yes ☐ Completed – Date:

Environmental Comments and Information:
NEPA/GEPA: N/A

Ecology:

Based on a desktop analysis, there is potential habitat for the following protected species: Georgia plume, gopher tortoise, spotted turtle, striped newt, frosted flatwoods salamander, and eastern indigo snake. Depending on the results of the general ecology field survey, seasonal surveys for these species may be required. A response from DNR is needed in order to confirm the need for an aquatic survey; however an aquatic survey is not anticipated at this time. In addition to the Canoochee River, forested wetland and open water resources are present in the project corridor. These wetlands likely provide suitable habitat for the eastern indigo snake and spotted turtle; project design should minimize impacts to wetlands and preserve water quality. The USFWS has recommended that GDOT evaluate a bridge design that reduces the number of in-stream bents and explore design elements that would minimize future scour and erosion of the river banks.

History: N/A

Archeology: N/A

Air Quality:

Is the project located in a PM 2.5 Non-attainment area? ☒ No ☐ Yes
Is the project located in an Ozone Non-attainment area? ☒ No ☐ Yes
Carbon Monoxide hotspot analysis: ☐ Required ☒ Not Required ☐ TBD

Noise Effects: N/A

Public Involvement: Joint Public Detour/Information Open House

Major stakeholders: Traveling Public

CONSTRUCTION

Issues potentially affecting constructability/construction schedule: N/A

Early Completion Incentives recommended for consideration: ☒ No ☐ Yes

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Federal Aviation Administration (FAA) coordination anticipated: ☒No ☐ Yes

Concept Meeting: Concept Team Meeting was held July 12. 2017. See Attachment 9.

Other coordination to date: N/A

Project Activity	Party Responsible for Performing Task(s)
Concept Development	GDOT District 5 Road Design.
Design	GDOT District 5 Road Design
Right-of-Way Acquisition	GDOT District 5 Right of Way
Utility Coordination (Preconstruction)	GDOT District 5 Utility Office
Utility Relocation (Construction)	Utility Owners
Letting to Contract	GDOT Office of Bidding Administration
Construction Supervision	GDOT District 5 Construction Office
Providing Material Pits	Contractor
Providing Detours	Contractor/GDOT Construction
Environmental Studies, Documents, & Permits	GDOT Office of Environmental Services
Environmental Mitigation	GDOT Office of Environmental Services
Construction Inspection & Materials Testing	GDOT Office of Materials and Testing

Project Cost Estimate Summary and Funding Responsibilities: See Attachments for more detailed cost estimate data.

	PE Activities					
	PE Funding	Section 404 Mitigation	ROW	Reimbursable Utilities	CST*	Total Cost
Funded By	GDOT	GDOT	GDOT	GDOT	GDOT	
$ Amount	$500,000	$200,000	$82,000	$36,000	$3,593,254.58	$4,411,254.58
Date of Estimate	12/02/2016	8/7/2017	7/10/17	5/17/2017	8/4/2017	

*CST Cost includes: Construction, Engineering and Inspection, Contingencies and Liquid AC Cost Adjustment.

ALTERNATIVES DISCUSSION

Alternative selection:

Preferred Alternative: Replace Bridge on Existing Alignment/ Offsite Detour			
Estimated Property Impacts:	**3 Parcels/1.0 ac**	**Estimated Total Cost:**	**$4,411,254.58**
Estimated ROW Cost:	**$82,000**	**Estimated CST Time:**	**12 months**
Rationale: This was chosen as the preferred alignment because it minimizes utility impacts, right of way impacts, and environmental impacts. It reduces the overall footprint of the project and requires the shortest construction time. A feasible, practical, 17 mile detour route has been selected that utilizes SR 169, SR 129, and US 301/SR 73.			

No-Build Alternative			
Estimated Property Impacts:	**0**	**Estimated Total Cost:**	**$0**
Estimated ROW Cost:	**$0**	**Estimated CST Time:**	**N/A**
Rationale*:* The no build alternative doesn't address the need for the project/ project justification statement. The existing bridge has a sufficiency rating of 45.5 with posted loading.			

Alternative 1: Southern Realignment of Roadway			
Estimated Property Impacts:	**8 Parcels/3.1 ac**	**Estimated Total Cost:**	**$5,399,017.30**
Estimated ROW Cost:	**$264,000**	**Estimated CST Time:**	**18 months**
Rationale*:* Realignment of SR 169 over the Canoochee River to the south of the existing corridor was not selected as the preferred alternative because a pond and wetlands exist south of the corridor. Environmental and Right of Way impacts would increase, and a residential displacement would be required.			

Alternative 2: : Northern Realignment of Roadway			
Estimated Property Impacts:	**10 Parcels/ 4.4 ac**	**Estimated Total Cost:**	**$5,418,460.53**
Estimated ROW Cost:	**$257,000**	**Estimated CST Time:**	**18 months**
Rationale: Realignment of SR 169 over the Canoochee River to the north of the existing corridor was not selected as the preferred alternative because large ponds/open waters would be impacted as well as other wetlands. Utility and right of way impacts are also increased by this alternative.			

Comments: N/A

LIST OF ATTACHMENTS/SUPPORTING DATA

1. Concept Layout
2. Typical sections
3. Detailed Cost Estimates:
    a. Preferred Alternate:
        i. Construction including Engineering and Inspection Contingencies,
        ii. Liquid AC Cost Adjustment forms
        iii. Utility Estimate,
        iv. Right of Way estimate
        v. Environmental Mitigation Estimate
4. Proposed Detour Map
5. Crash summaries
6. Traffic Projections
7. Bridge Inventory Data Listing
8. Pavement studies *(Initial Pavement Evaluation Summary)*
9. Minutes of Concept meetings

APPROVALS

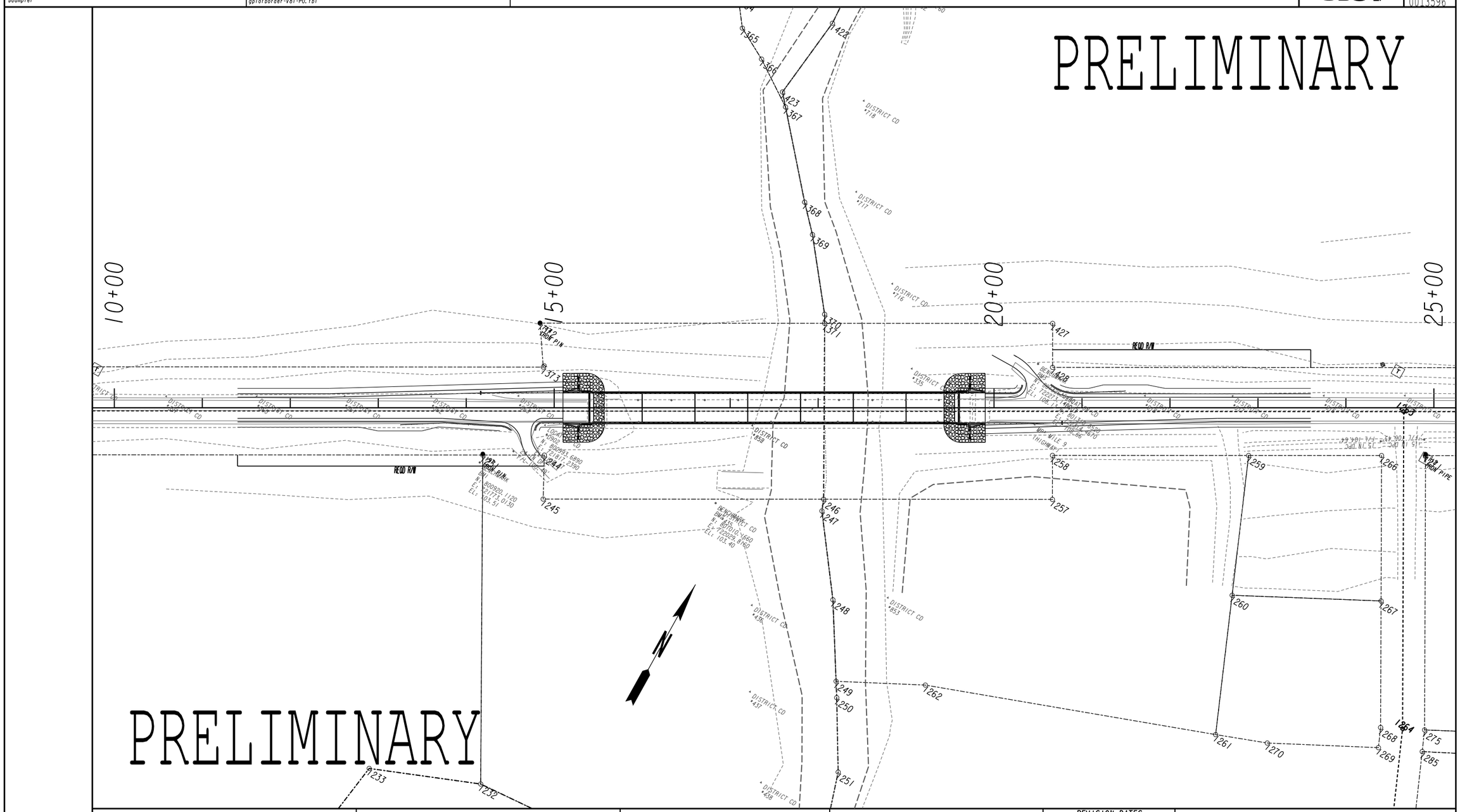
Concur: Neal Pitt
Director of Engineering

Approve: Margaret B. Pirkle
Chief Engineer

10/23/17
Date

6/26/2017	10:22:17 AM	GPLOT-V8	0013596_Layout1A.dgn	GDOT	P.I. No.
bdampler		gplotborder-V81-PO.tbl			0013596

PRELIMINARY



PRELIMINARY

REVISION DATES		

SCALE IN FEET
0 50 100 200

CONSTRUCTION PLAN
S.R. 169 @ CANOOCHEE RIVER
Preferred Alternate

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		1
VERIFIED:		DATE:		

10/23/2015 GPLN

PRELIMINARY

PRELIMINARY REQUIRED PAVEMENT

A RECYCLED ASPH CONC 12.5 mm SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME - (165 LB/SY)

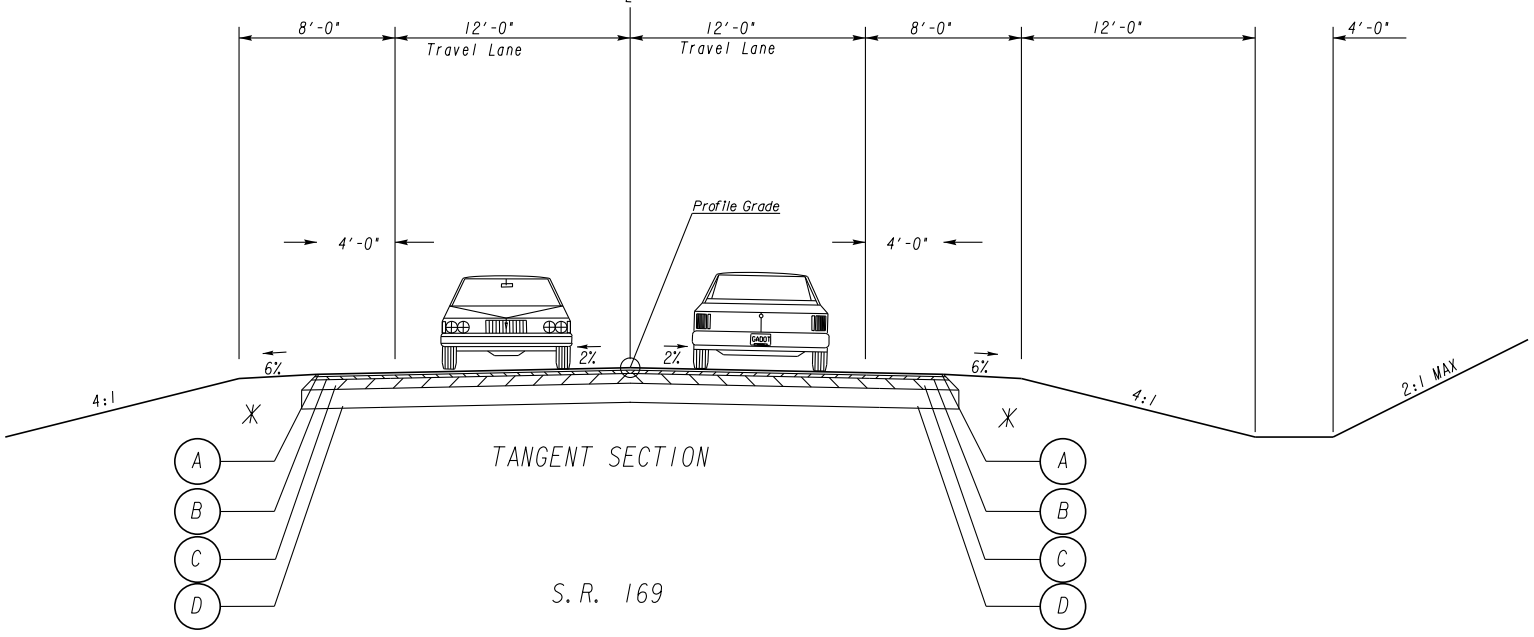
B RECYCLED ASPH CONC 19 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME - (220 LB/SY)

C RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME - (330 LB/SY)

D GRADED AGGREGATE BASE 8"

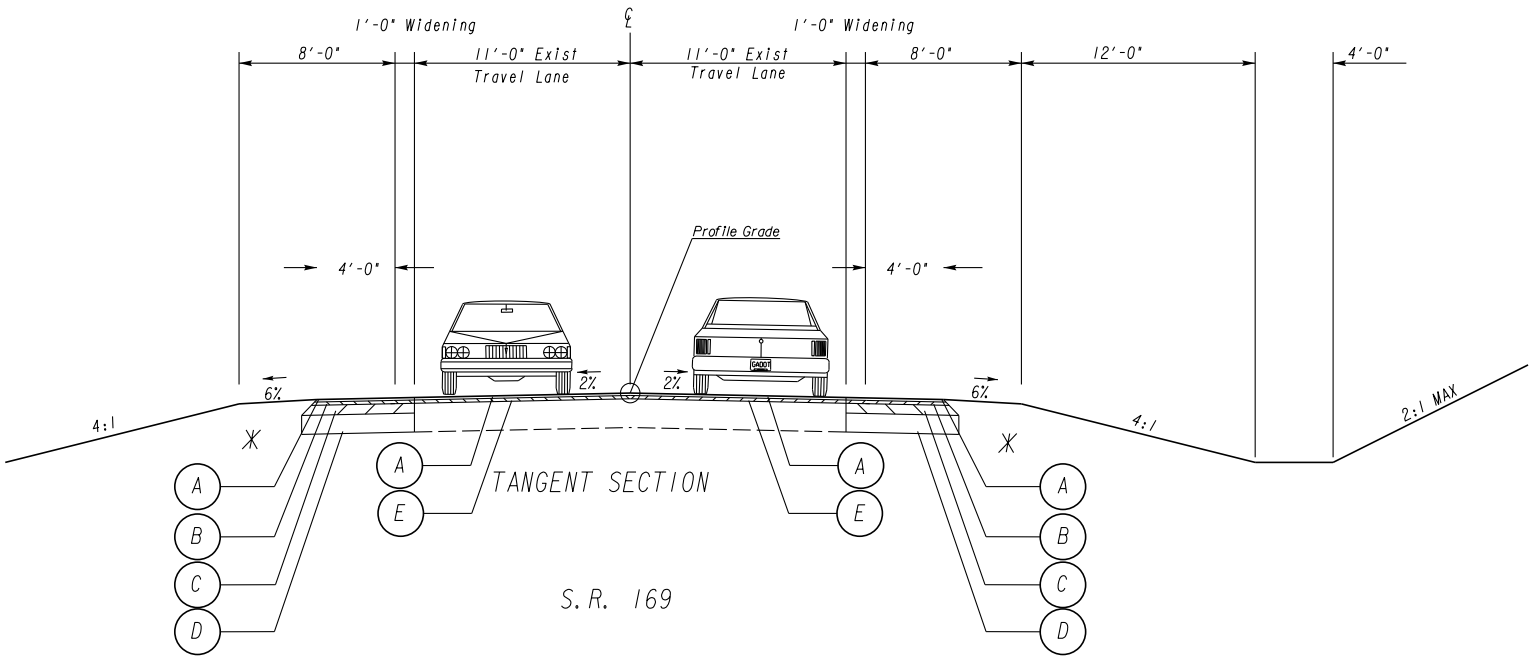
E RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME (AS DIRECTED BY ENGINEER)

TYPICAL SECTION



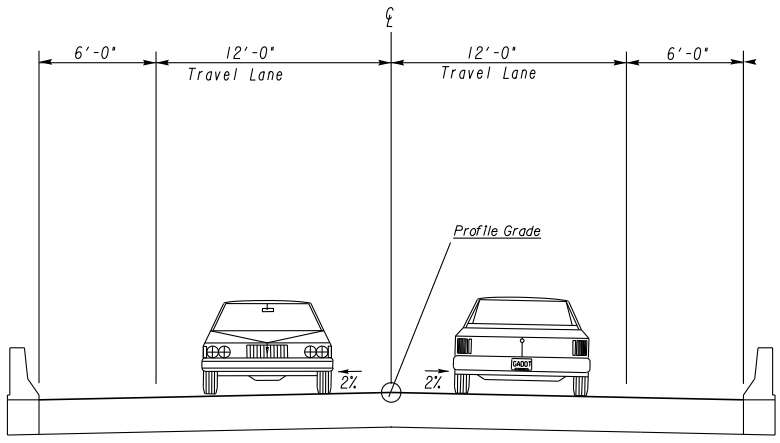
TANGENT SECTION

S.R. 169



TANGENT SECTION

S.R. 169



BRIDGE TYPICAL

S.R. 169

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. No. **13596** **OFFICE** Program Delivery

PROJECT DESCRIPTION
SR 169 @ Canoochee River 4 Miles North of Claxton (Preferred Alt)

DATE September 27, 2017

From: Albert V. Shelby, III, State Program Delivery Engineer

To: Lisa L. Myers, State Project Review Engineer

Subject: REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER Brian McHugh

MGMT LET DATE 7/15/2020

MGMT ROW DATE 4/15/2019

PROGRAMMED COSTS (TPro W/OUT INFLATION)			**LAST ESTIMATE UPDATE**
CONSTRUCTION	**$**	3,900,000.00	DATE
RIGHT OF WAY	**$**	250,000.00	DATE
UTILITIES	**$**	0.00	DATE

REVISED COST ESTIMATES

CONSTRUCTION*	**$**	3,593,254.58
RIGHT OF WAY	**$**	82,000.00
UTILITIES	**$**	36,000.00

*Cost Contains **12** % Contingency

REASONS FOR COST INCREASE AND CONTINGENCY JUSTIFICATION:

A 12% contingency was selected based on the "Risk Based Cost Estimation" memo which gives a range of 10% to 15% for this type of project at this stage. Based on what is currently known about this project, a moderate risk in the middle of the range was selected.

CONTINGENCY SUMMARY

A.	**CONSTRUCTION COST ESTIMATE:**	$ 3,047,189.33	Base Estimate From CES		
B.	**ENGINEERING AND INSPECTION (E & I):**	$ 152,359.47	Base Estimate (A) x	**5**	%
C.	**CONTINGENCY:**	$ 383,945.86	Base Estimate (A) + E & I (B) x	**12**	%
			See % Table in "Risk Based Cost Estimation" Memo		
D.	**TOTAL LIQUID AC ADJUSTMENT:**	$ 9,759.93	Total From Liquid AC Spreadsheet		
E.	**CONSTRUCTION TOTAL:**	$ **3,593,254.58**	(A + B + C + D = E)		

REIMBURSABLE UTILTY COSTS

UTILITY OWNER	REIMBURSABLE COST
Cannochee EMC	$36,000.00
AT&T	$0.00
TOTAL	**$ 36,000.00**

ATTACHMENTS:

Detailed Cost Estimate Printout From TRAQS
Liquid AC Adjustment Spreadsheet

PROJ. NO.	0013596	CALL NO.	9/29/2009
P.I. NO.	0013596		
DATE	9/27/017		

INDEX (TYPE)	**DATE**	**INDEX**
REG. UNLEADED	Sep-17	$ 2.508
DIESEL		$ 2.607
LIQUID AC		$ 361.00

Link to Fuel and AC Index:
http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

LIQUID AC ADJUSTMENTS

PA=[((APM-APL)/APL)]xTMTxAPL

Asphalt

Price Adjustment (PA)				**9508.74**	**$ 9,508.74**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	577.60	
Monthly Asphalt Cement Price month project let (APL)			$	361.00	
Total Monthly Tonnage of asphalt cement (TMT)				43.9	

ASPHALT	**Tons**	**%AC**	**AC ton**
Leveling	616	5.0%	30.8
12.5 OGFC		5.0%	0
12.5 mm	154	5.0%	7.7
9.5 mm SP		5.0%	0
25 mm SP	44	5.0%	2.2
19 mm SP	64	5.0%	3.2
	878		**43.9**

BITUMINOUS TACK COAT

Price Adjustment (PA)			**$**	**251.19**	**$ 251.19**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	577.60	
Monthly Asphalt Cement Price month project let (APL)			$	361.00	
Total Monthly Tonnage of asphalt cement (TMT)				1.159677249	

Bitum Tack Gals	gals/ton	tons
270	232.8234	1.159677249

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)				**0**	**$ -**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	577.60	
Monthly Asphalt Cement Price month project let (APL)			$	361.00	
Total Monthly Tonnage of asphalt cement (TMT)				0	

Bitum Tack	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.		0.20	0	232.8234	0
Double Surf.Trmt.		0.44	0	232.8234	0
Triple Surf. Trmt		0.71	0	232.8234	0
					0

TOTAL LIQUID AC ADJUSTMENT	**$ 9,759.93**

Detailed Cost Estimate

Time Processed: Sep-28-2017 09:35:04 AM

JOB NUMBER: 0013596
FED/STATE PROJECT NUMBER:
SPEC YEAR: 13
ITEM HISTORY: ALL_2016Q4_24MO
DESCRIPTION: S.R. 169 @ CANOOCHEE RIVER 4 MILES NORTH OF CLAXTON
ASSIGNED CONTROL GROUP: DISTRICT 5

ITEMS FOR JOB 0013596

01 - ROADWAY

Line Number	Item	Quantity	Units	Price	Description	Amount
0005	150-1000	1.00	LS	$270,000.00000	TRAFFIC CONTROL - 10% OF PROJECT	$270,000.00
0010	153-1300	1.00	EA	$92,779.69372	FIELD ENGINEERS OFFICE TP 3	$92,779.69
0015	210-0100	1.00	LS	$111,720.00000	GRADING COMPLETE - 5.54% ETHWRK; 0.21% TREERMVL; 0.13%MISC	$111,720.00
0019	310-5060	311.00	SY	$16.37234	GR AGGR BS CRS 6IN INCL MATL	$5,091.80
0020	310-5080	267.00	SY	$24.02289	GR AGGR BS CRS 8IN INCL MATL	$6,414.11
0025	402-1812	616.00	TN	$96.37324	RECYL AC LEVELING,INC BM&HL	$59,365.92
0030	402-3130	154.00	TN	$106.36933	RECYL AC 12.5MM SP,GP2,BM&HL	$16,380.88
0035	402-3190	64.00	TN	$101.51512	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	$6,496.97
0040	402-3121	44.00	TN	$101.60270	RECYL AC 25MM SP,GP1/2,BM&HL	$4,470.52
0045	413-0750	270.00	GL	$1.84000	TACK COAT	$496.80
0050	433-1000	262.00	SY	$197.91733	REINF CONC APPROACH SLAB	$51,854.34
0055	446-1100	1313.00	LF	$6.71180	PVMT REF FAB STRIPS, TP2,18 INCH WIDTH	$8,812.59
0060	634-1200	10.00	EA	$126.71400	RIGHT OF WAY MARKERS	$1,267.14
0065	641-1100	84.00	LF	$71.62694	GUARDRAIL, TP T	$6,016.66
0070	641-1200	400.00	LF	$18.97622	GUARDRAIL, TP W	$7,590.49
0075	641-5001	2.00	EA	$1,058.09906	GUARDRAIL ANCHORAGE, TP 1	$2,116.20
0080	641-5020	2.00	EA	$2,445.07000	GUARDRL, ANCHOR, TP 12B,31 IN, FLR, E/A	$4,890.14
ROADWAY Total						**$655,764.25**

02 - BRIDGE

Line Number	Item	Quantity	Units	Price	Description	Amount
0085	540-1102	1.00	LS	$402,822.00000	REM OF EX BR, BR NO - 32.2X417X30=$402,822	$402,822.00
0090	543-9000	1.00	LS	$1,813,350.00000	CONSTR OF BRIDGE COMPLETE - 39.25X420X110=$1,813,350	$1,813,350.00
BRIDGE Total						**$2,216,172.00**

03 - EROSION CONTROL

Line Number	Item	Quantity	Units	Price	Description	Amount
0105	009-3000	1.00	LS	$157,130.00000	MISCELLANEOUS CONSTRUCTION EROSION CONTROL 8.27%	$157,130.00
EROSION CONTROL Total						**$157,130.00**

04 - DRAINAGE

Line Number	Item	Quantity	Units	Price	Description	Amount
0095	441-0301	4.00	EA	$2,040.31602	CONC SPILLWAY, TP 1	$8,161.26
0100	576-1018	118.00	LF	$42.55781	SLOPE DRAIN PIPE, 18 IN	$5,021.82
DRAINAGE Total						**$13,183.08**

05 - SIGNING AND MARKING

Line Number	Item	Quantity	Units	Price	Description	Amount
0110	009-3000	1.00	LS	$4,940.00000	MISCELLANEOUS CONSTRUCTION SIGN AND MARK 0.26%	$4,940.00
SIGNING AND MARKING Total						**$4,940.00**

TOTALS FOR JOB 0013596

ITEMS COST:	$3,047,189.33
COST GROUP COST:	$0.00
ESTIMATED COST:	$3,047,189.33
CONTINGENCY PERCENT:	0.00%
ENGINEERING AND INSPECTION:	0.00%
ESTIMATED COST WITH CONTINGENCY AND E&I:	$3,047,189.33

File Location: Div of Preconstruction > CES

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: PI No.0013596, Evans County
SR 169 @ Canoochee River 4 Mi N of
Claxton

Office: District 5, Utilities

Date: May 12, 2017

FROM: Dallory Rozier, District Utilities Manager

TO: Brian McHugh, Project Manager

SUBJECT: **PRELIMINARY UTILITY COST ESTIMATE (Layout 1 of 3)**

A review of utilities located on the above referenced project has been conducted based on the latest available plans. Listed below is a breakdown of the anticipated reimbursable and non-reimbursable cost.

Utility Owner	Reimbursable	Non-Reimbursable	Estimate Based on
Canoochee EMC	**$$36,000.00**	**$00.00**	
AT&T	**$00.00**	**$22,500.00**	
Total 0.00%	**$36,000.00**	**$22,500.00**	
Department Responsibility 100%	**$ 0.00**	**$ 0.00**	
Local Sponsor Responsibility 100%	**$ 00.00**	**$ 0.00**	**PFA Dated N/A with N/A**

Estimate is based on the best available information at the current stage, unforeseen prior rights information may be provided by the Utility Company at a later date that could cause some non-reimbursable costs to shift to the reimbursable cost column.

If additional information is needed, please contact John Royal at 912-530-4405.

cc: Patrick Allen, P.E., State Utilities Manager
Kerry Gore, Assistant State Utilities Administrator
Yulonda Pride-Foster, Utilities Preconstruction Manager
Davida White, Utilities Preconstruction Specialist
Vahid Munshi, Management Specialist

GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY

Date: 7/10/2017 Project: SR 169
Revised: County: Evans
PI: 13596
Description: Bridge Replacement over Canoochee River SR 169
Project Termini:

Existing ROW: Varies
Parcels: 3 Required ROW: Varies

Land and Improvements		$4,327.50
Proximity Damage	$0.00	
Consequential Damage	$0.00	
Cost to Cures	$0.00	
Trade Fixtures	$0.00	
Improvements	$0.00	
Valuation Services		$2,500.00
Legal Services		$39,525.00
Relocation		$6,750.00
Demolition		$0.00
Administrative		$28,500.00
TOTAL ESTIMATED COSTS		$81,602.50
TOTAL ESTIMATED COSTS (ROUNDED)		***$82,000.00***

Preparation Credits	Hours	Signature
	10	Bryan Wyatt

Prepared By: Bryan Wyatt CG#: (DATE) 7/10/17
Approved By: CG#: 6401 (DATE)

NOTE: No Market Appreciation is included in this Preliminary Cost Estimate

Yoder, Maggie K.

From: Westberry, Lisa
Sent: Monday, August 07, 2017 11:05 AM
To: Dampier, Billy
Cc: Yoder, Maggie K.; McHugh, Brian
Subject: FW: Environmental Mitigation Cost on 0013596 Evans County. 169 Bridge @ Canoochee Bridge.
Attachments: 0013596_Concept_Report.docx; Image of Project Limit 0013596.pdf; 0013596 _Layout1.pdf

Good morning Billy,

As requested, I am providing you with a preliminary cost estimate for the subject project. This project will replace the bridge on SR 169 over the Canoochee River north of Claxton, Georgia. Based on the NWI mapping and soil surveys, waters of the US may be impacted by the proposed project. The estimated cost for mitigation credits is $200,000. Note, this estimate is not based on actual field surveys and was calculated using the most recent costs for credits in this area. The total cost of mitigation could be lower or higher depending on the actual field survey data and the cost of credits at the time of purchase.

If you should have any questions or need any additional information, please do not hesitate to contact me.

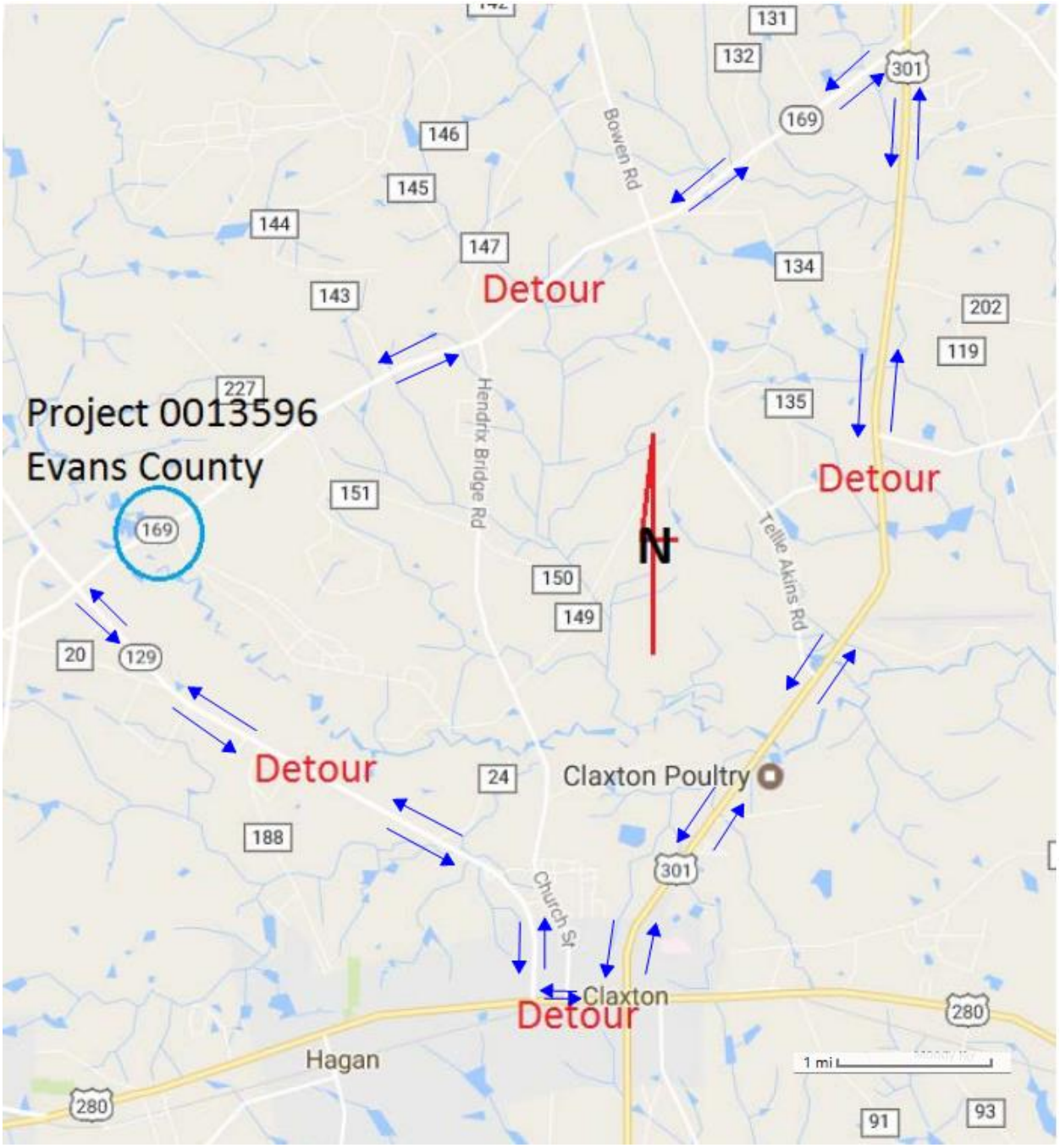
Lisa Westberry | **Special Projects Coordinator** | **Office of Environmental Services** | **600 West Peachtree Street, NW** | **Atlanta, GA 30308** | 404-631-1772

From: Dampier, Billy
Sent: Thursday, August 03, 2017 1:37 PM
To: Westberry, Lisa
Cc: Yoder, Maggie K.; McHugh, Brian
Subject: Environmental Mitigation Cost on 0013596 Evans County. 169 Bridge @ Canoochee Bridge.

Lisa,

I am finalizing the concept of 0013596 at need Environmental Mitigation Cost for this project. I plan on submitting it Aug 14 to Brian McHugh for submittal and approval processing. Thanks

Billy Dampier, Transportation Specialist 1
District 5 Road Design
bdampier@dot.ga.gov
Work Number (912) 530-4382
Cellphone Number (912) 269-3297


Project 0013596
Evans County
Detour
Detour
Detour
Detour
Claxton Poultry
Claxton
Hagan
Bowen Rd
Hendrix Bridge Rd
Tellie Akins Rd
Church St
N
1 mi
131
132
301
169
146
145
144
147
143
134
202
119
227
135
151
150
149
20
129
24
188
280
91
93

Georgia Department of Transportation

Accident Id	Date	Time	County	Route	Route No	Milelog	Intersecting Rt Type	Intersecting Route	Total Injuries	Total Fatalities	Collision	Location of Impact	Harmful Event	Light	Surface	D1	D2	VM	VM
GDOT2580795-01	7/22/2014	11:19PM	Evans	State	169	55.6			1	0	Fixed Object	Impact	Traffic Sign Support	Dark-Not Lighted	Wet	N	N/A	1	N/A

Department of Transportation
State of Georgia

INTERDEPARTMENT CORRESPONDENCE

FILE Evans County
P.I. # 0013596

OFFICE Planning

DATE February 7, 2017

FROM Cynthia L. VanDyke, State Transportation Planning Administrator

TO Albert Shelby, State Program Delivery Engineer
Attention: Brian McHugh

SUBJECT Traffic Assignments for SR 169 @ CANOOCHEE RIVER 4 MI N OF CLAXTON

We are furnishing traffic assignments for the above project as follows:

BRIDGE-ID 109-0015-0

NO BUILD = BUILD TC=0183	2015 (Existing Year)	2022 (Base Year)	2024 (Base Year +2)	2042 (Design Year)	2044 (Design Year + 2)
AADT	1720	1780	1800	1970	1990
DHV (AM/PM)	135 / 145	140 / 150	145 / 155	155 / 165	160 / 170
K% (AM/PM)	8.0% / 8.5%	Same as Existing Year			
D% (AM/PM)	53% NB / 59% SB				
24 HR. T% - S.U.	11.5%				
24 HR. T% - COMB.	5.5%				
24 HR. T% - TOTAL	6.0%				
T% - S.U. (AM/PM)	9.0% / 8.0%				
T% - COMB. (AM/PM)	5.0% / 5.0%				
T% - TOTAL (AM/PM)	4.0% / 3.0%				

If you have any questions concerning this information please contact Andre Washington at (404) 631-1925.

CLV/AMW

Traffic Projections/Forecasting Summary Sheet

XXXXX-XXXX-XX(XXX)

P.I. # 0013596

EVANS COUNTY

Year Counts Were Taken: 2015

Growth Factors

Build		**No Build**	
Growth for Build		***Growth for No Build***	
2015-2022			
Existing Year to Base Year:		Existing Year to Base Year:	
Mainline (SR0169)	0.50%	Mainline (SR0169)	0.50%
2022-2042			
Base Year to Design Year:		Base Year to Design Year:	
Mainline (SR0169)	0.50%	Mainline (SR0169)	0.50%
2015-2024			
Existing Year to Base Year:		Existing Year to Base Year:	
Mainline (SR0169)	0.50%	Mainline (SR0169)	0.50%
2024-2044			
Base Year to Design Year:		Base Year to Design Year:	
Mainline (SR0169)	0.50%	Mainline (SR0169)	0.50%

RESEARCHED BY: ANDRE WASHINGTON
DATE: FEBRUARY 2017

Mainline (SR0169)
PM K = 8.5%
AM K = 8.0%
Mainline (SR0169)
PM D = 59% SB
AM D = 53% NB

Mainline (SR0169)
PM K = 8.5%
AM K = 8.0%
Mainline (SR0169)
PM D = 59% SB
AM D = 53% NB

Assumptions

- Reviewed GDOT AADT Historical Traffic Growth Trends for the past 25 Years, 20 Years, 15 Years, 10 Years, and 5 Years for the following:
    a. 2 Traffic Counter Location within the scope of this project.
- Reviewed Georgia Residential Population Projections Based on The 2000 Census Count and The 2010 Census Count for the following.
    a. Evans County
    b. Zip Code 30417 (Within The City & Surrounding Area Of Claxton Georgia and Encompasses Project Limits)
    c. Zip Code 30414 (City Of Bellville Georgia)
    d. Zip Code 30423 (East Of City Of Claxton Georgia)
    e. Zip Code 30429 (City Of Hagan Georgia)

RESEARCHED BY: ANDRE WASHINGTON
DATE: FEBRUARY 2017

Bridge Inventory Data Listing Georgia Department of Transportation

Processed Date:5/17/2017

Parameters: Bridge Serial Number

Bridge Serial Number: 109-0015-0 **County: Evans** **SUFF. RATING: 45.5**

Location & Geography

Structure ID:	109-0015-0			218 Datum:	2- Mean Sea Level	**Signs & Attachments**	
200 Bridge Information:	06			*19 Bypass Length:	7	225 Expansion Joint Type:	02- Open or sealed concrete joint (silicone sealant).
*6 Feature Intersected:	CANOOCHEE RIVER			*20 Toll:	3- On a Free Road or Non-Highway	242 Deck Drains:	1- Open Scuppers.
*7A Route Number Carried:	SR00169			*21 Maintenance Responsibility:	01-State Highway Agency.	243A Parapet Location:	0- None present.
*7B Facility Carried:	SR 169			*22 Owner:	01-State Highway Agency.	243B Parapet Height:	0.00
9 Location:	4 MI N OF CLAXTON			*31 Design Load:	2- H 15	243C Parapet Width:	0.00
2 GDOT District:	4841500000 - D5 District Five Jesup			37 Historical Significance:	5- Not eligible for the National Register of Historic Places	238A Curb Height:	1.2
*91 Inspection Frequency:	24	Date:	02/09/2017	205 Congressional District:	012	238B Curb Material:	1- Concrete.
92A Fracture Critical Insp. Freq:	0	Date:	01/31/1901	27 Year Constructed:	1958	239A Handrail Left:	1- Concrete.
92B Underwater Insp Freq:	0	Date:	01/31/1901	106 Year Reconsrtucted:	0	239B Handrail Right:	1- Concrete.
92C Other Spc. Insp Freq:	0	Date:	01/31/1901	33 Bridge Median:	0-None	*240 Median Barrier Rail:	0- None.
* 4 Place Code:	00000			34 Skew:	0	241A Bridge Median Height:	0
*5A Inventory Route(O/U):	1			35 Structure Flared:	No	241B Bridge Median Width:	0
5B Route Type:	3 - State			38 Navigation Control:	0- Navigation is not controlled by an Agency	*230A Guardrail Location Direction Rear:	3- Both sides.
5C Service Designation:	1- Mainline			213 Special Steel Design:	0- Not applicable or other	*230B Guardrail Location Direction Fwrd:	3- Both sides.
5D Route Number:	00169			267A Type Paint Super Structure:	0- Not Applicable. Year : 0000	*230C Guardrail Location Opposing Rear:	0- None.
5E Directional Suffix:	0. Not applicable			267B Type Paint Sub Structure:	0- Not Applicable Year : 0000	*230D Guardrail Location Opposing Fwrd:	0- None.
*16 Latitude:	32 - 12.1500			*42A Type of Service On:	1-Highway	244 Approach Slab:	3- Forward and Rear.
*17 Longtitude:	81 - 57.2184			*42B Type of Service Under:	5-Waterway	224 Retaining Wall:	0- None.
98A Border Bridge:	0	98B: GA%	00	214A Movable Bridge:	0	233 Posted Speed Limit:	55
99 ID Number:	000000000000000			214B Operator on Duty:	0	236 Warning Sign:	No
*100 STRAHNET:	0- The Feature is not a STRAHNET route.			203 Type Bridge:	D - Concrete pile. O. Concrete O. Concrete O. Concrete	234 Delineator:	Yes
12 Base Highway Network:	Yes			259 Pile Encasement:	3	235 Hazard Boards:	Yes
13A LRS Inventory Route:	1091016900			*43A Structure Type Main material:	1-Concrete	237A Gas:	00- Not Applicable
13B Sub Inventory Route:	0			*43B Structure Type Main Type:	4-Tee Beam	237B Water:	00- Not Applicable
101 Parallel Structure:	N. No parallel structure exists			45 Number of Main Spans:	11	237C Electric:	00- Not Applicable
*102 Direction of Traffic:	2- Two Way			44 Structure Type Approach:	A:0- Other B: 0- Other	237D Telephone:	31- Side Left.
*264 Road Inventory Mile Post:	8.98			46 Number of Approach Spans:	0	237E Sewer:	00- Not Applicable
*208 Inspection Area:	Area 05			226 Bridge Curve:	A: Vertical: NoB: Horizontal: No	247A Lighting: Street:	No
*104 Highway System:	0- Inventory Route is not on the NHS			111 Pier Protection:	N - Navigation Control item coded 0, or Feature not a waterway	247B Navigation:	No
*26 Functional Classification:	7- Rural - Major Collector			107 Deck Structure Type:	1 - C-I-P Portland Cement Concrete - Epoxy Coated Rebars	247C Aerial:	No
*204A Federal Route Type:	S - Secondary.			108A Wearing Surface Type:	1. Concrete	*248 County Continuity No.:	00
*204B Federal Route Number:	01138			108B Membrane Type:	8. Unknown	36A Bridge Railings:	2- Inspected feature meets acceptable construction date standards.
105 Federal Lands Highway:	0. Not applicable			108C Deck Protection:	8. Unknown	36B Transition:	2- Inspected feature meets acceptable construction date standards.
*110 Truck Route:	0- The Feature is not part of the National Network for Trucks			265 Underwater Inspection Area:	0	36C Approach Guardrail:	1- Meets current standards
217 Benchmark Elevation:	0111.30					36D Approach Guardrail Ends:	2- Inspected feature meets acceptable construction date standards.
* Location ID No:	109-00169D-008.92N						

Bridge Inventory Data Listing Georgia Department of Transportation

Processed Date:5/17/2017

Bridge Serial Number: 109-0015-0

County: Evans

SUFF. RATING: 45.5

Programming Data

201 Project Number:	S-1138 (2)
202 Plans Available:	4- Plans in InfoImage.
249 Proposed Project Number:	00000000000000000000000
250A Reconstruction Approval Status:	No
250B Route Approval Status:	No
250C Approval Status Definition:	0
250D Approval Status Federal:	0
251Project Identification Number:	0013596
252 Contract Date:	01/31/1901
260 Seismic Number:	00000
75A Type Work Proposed:	34- Widening with deck rehabilitation or replacement
75B Work Done by:	1- Work to be done by contract
94 Bridge Improvement Cost:(X$1,000)	$1,629
95 Roadway Improvement Cost: (X$1,000)	$163
96 Total Improvement Cost: (X$1,000)	$2444
76 Improvement Length:	629.0'
97 Year Improvement Cost Based On:	2013
114 Future AADT:	2835
115 Future AADT Year:	2031

Hydraulic Data

113 Scour Critical:	U. No Load Rating; no scour critical data entered.
216A Water Depth:	09.6
216B Bridge Height:	11.3
222 Slope Protection:	6
221A Spur Dike Rear:	
221B Spur Dike Fwd:	
219 Fender System:	0- None.
220 Dolphin:	
223A Culvert Cover:	000
223B Culvert Type:	0- Not Applicable
223C Number of Barrels:	0
223D Barrel Width:	0.0
223E Barrel Height:	0.0
223F Culvert Length:	0.0
223G Culvert Apron:	0
39 Navigation Vertical Clearance:	0'
40 Navigation Horizontal Clearance:	0
116 Navigation Vertical Clear Closed:	0

Measurements:

*29 AADT:	1890
*30 AADT Year:	2011
109 % Truck Traffic:	12
* 28A Lanes On:	2
*28B Lanes Under:	0
210A Tracks On:	00
210B Tracks Under:	0
* 48 Maximum Span Length:	38
* 49 Structure Length:	417
51 Bridge Roadway Width:	26.0'
52 Deck Width:	32.2'
* 47 Total Horizontal Clearance:	26.0'
50A Curb / Sidewalk Width Left:	2.0
50B Curb / Sidewalk Width Right:	2.0
32 Approach Rdwy. Width:	28.0'

***229 Approach Roadway**

Rear Shoulder Left: Width:	3	*Right Width*:3.3000000000000003	Type: 2 - Asphalt.
Fwd Shoulder: Left Width:	3	*Right Width:*3.0	Type: 2 - Asphalt.
Rear Pavement: Width:	22.0	*Type:*2- Asphalt.	
Forward Pavement: Width:	22.0	*Type:*2- Asphalt.	
Intersection Rear:	0	*Forward*:0	

53 Minimum Vertical Clearance Over Rd:	99' 99"
54A Under Reference Feature:	N- Feature not a highway or railroad.
54B Minimum Clearance Under:	0' 0"

***228 Minimum Vertical Clearance**

228A Actual Odometer Direction:	99'99"
228B Actual Opposing Direction:	99'99"
228C Posted Odometer Direction:	00'00"
228D Posted Opposing Direction:	00'00"
55A Lateral Underclearance Reference:	N- Feature not a highway or railroad.
55B Lateral Underclearance on Right:	0.0
56 Lateral Underclearance on Left:	0.0
10A Direction of Travel for Max Min:	0
10B Max Min Vertical Clearance:	99'99"
245A Deck Thickness Main:	6.0
245B Deck Thickness Approach:	0.0
246 Overlay Thickness:	0

Ratings and Posting

65 Inventory Rating Method:	1-Load Factor (LF)
63 Operating Rating Method:	1-Load Factor (LF)
66A Inventory Type:	2 - HS loading.
66B Inventory Rating:	15
64A Operating Type:	2 - HS loading.
64B Operating Rating:	25

231Calculated Loads		**Posting Required**
231A H-Modified:	21	Yes
231B Type3/Tandem:	22	Yes
231C Timber:	31	Yes
231D HS-Modified:	28	Yes
231E Type 3S2:	37	Yes
231F Piggyback:	40	No

261 H Inventory Rating:	11
262 H Operating Rating:	19
67 Structural Evaluation:	4
58 Deck Condition:	6 - Satisfactory Condition
59 Superstructure Condition:	6 - Satisfactory Condition
* 227 Collision Damage:	
60A Substructure Condition:	5 - Fair Condition
60B Scour Condition:	7 - Good Condition
60C Underwater Condition:	N - Not Applicable
71 Waterway Adequacy:	8-Equal to present desirable criteria.
61 Channel Protection Cond.:	7-Better than present minimum criteria.
68 Deck Geometry:	4
69 UnderClr. Horz/Vert:	N
72 Approach Alignment:	8-No reduction of vehicle operating speed required.
62 Culvert:	N - Not Applicable
70 Bridge Posting Required:	1. 30 - 39.9% below
41 Struct Open, Posted, CL:	P. Posted for load
* 103 Temporary Structure:	No

232 Posted Loads

232A H-Modified:	21
232B Type3/Tandem:	22
232C Timber:	31
232D HS-Modified:	28
232E Type 3s2:	37
232F Piggyback:	00
253 Notification Date:	01/31/1901
258 Federal Notify Date:	01/31/1901

DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA
OFFICE OF MATERIALS AND TESTING
QUALITY ADMINISTRATION BUREAU
LETTER OF TRANSMITTAL

TO:	Albert V. Shelby, III	**DATE:**	May 5, 2017
	Director of Program Delivery	**PROJECT NUMBER:**	n/a
ATTN:	Brian McHugh, Project Manager	**COUNTY:**	Evans
		P.I. NUMBER:	0013596
FROM:	Monica L. Flournoy, P.E.		
	State Materials Engineer		

PROJECT DESCRIPTION: SR 169 at Canoochee River

WE ARE SENDING YOU
THE FOLLOWING ITEMS: ☒ ATTACHED ☐ UNDER SEPARATE COVER

OTHER:

☐ BFI
☒ Initial Pavement Evaluation Summary
☐ ESA: Phase II
☐ SSS
☐ Pavement Type Selection
☐ OTHER
☐ WFI
☐ Pavement Design

PAGES	DESCRIPTION
3	Initial Pavement Evaluation Summary
1	Location Map
3	Distress Photos
1	Flexible Full Depth Design

THESE ARE TRANSMITTED AS CHECKED BELOW:

☒ AS REQUESTED
☐ FOR REVISION
☒ FOR YOUR USE
☐ FOR REVIEW AND COMM.
☐ FOR APPROVAL

MLF:PES

cc: Bradford W. Saxon, P.E., District 5 Engineer, Jesup
W. Ron Nelson, Jr., Area 4 Engineer, Statesboro
Peter Wu, P.E., PhD., Assistant State Materials Engineer, Forest Park
Sheila Hines, State Bituminous Construction Engineer, Forest Park
File

Initial Pavement Evaluation Summary
SR 169, Evans County
PI No. 0013596
May 5, 2017

1. Project Location and Description

Project Identification (PI) Number (No.) 0013596 is located on State Route (SR) 169 at Canoochee River in Evans County, Georgia.

The project proposes to replace the existing, structurally deficient bridge and overlay the existing pavement at the bridge approaches. The project begins approximately 1,000 feet south of the bridge and extends north to Canoochee Drive. The total length of the project is 0.51 miles.

At the request of the GDOT Office of Program Delivery, the Pavement Management Branch of the Office of Materials and Testing (OMAT) reviewed the suitability of the existing pavement to be retained for the proposed project with the design traffic loading. This Initial Pavement Evaluation Summary (IPES) report includes a pavement design recommendation as a response to this request.

2. Existing Conditions

2.1 Soil Survey

A Soil Survey was not available for this project. Therefore, the historic default Soil Support Value (SSV) and Regional Factor (RF) for Evans County were used in development of the pavement design. Lime Rock, Soil Cement, Graded Aggregate Base (GAB), and Asphaltic Concrete are the base types typically allowed in this area. If a soil survey is completed at a later date, the design should be re-evaluated.

2.2 Traffic

Traffic diagrams and typical sections were provided by the Project Manager from the GDOT Office of Program Delivery. The data used in the pavement design is summarized in Table 1.

Table 1: Traffic

Road	No. of Lanes Each Direction	2022 AADT (Two-way)	2042 AADT (Two-way)	24hr Truck %	Single Unit Truck %	Multi-Unit Truck %
SR 169	1	1780	1970	11.5	6.0	5.5

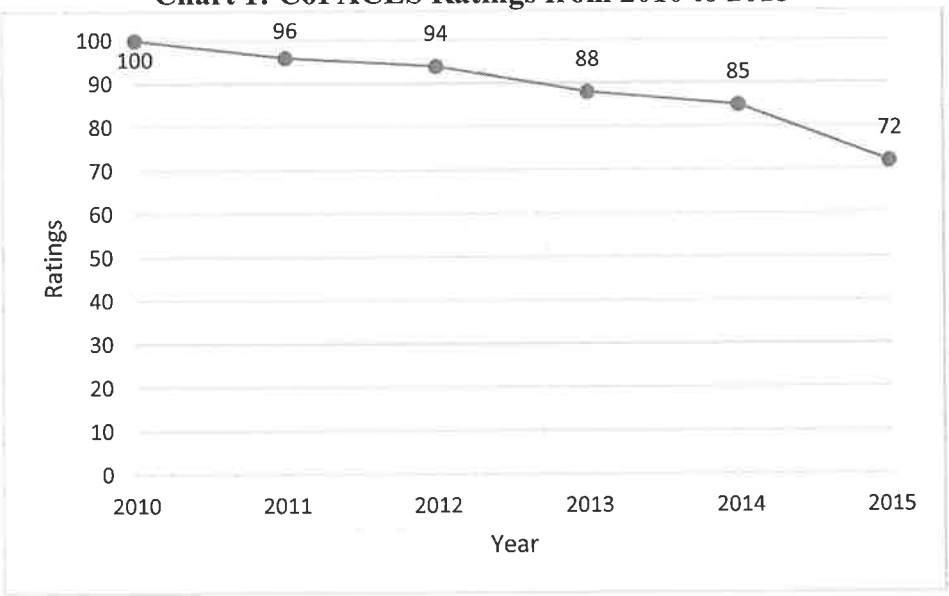
2.3 Field Investigation

Personnel from the Pavement Management Branch conducted a field investigation on March 20, 2017. The investigator noted and photographed visible pavement surface distresses within the project limits. The photos illustrate the extent and severity of the distresses noted. Photos of examples are included as attachments to this report. Level 1 transverse cracks were observed throughout the project at fairly regular intervals. Level 3 load cracking was observed in the southbound lane to the north of the bridge. Level 1 load cracking was observed in the northbound lane to the south of the bridge.

2.4 CoPACES (Computerized Pavement Condition Evaluation System)

The GDOT Maintenance Office conducts regular, routine surveys of GDOT maintained routes. The CoPACES ratings from these surveys are based on a visual survey of surface distresses of the pavement. In 2015, the average rating for SR 169 from Milepost (MP) 9 to MP 10 in Evans County was 72. This rating can be described as fair to poor. The rating showed significant level 1 (40%) load cracking and extensive level 1 (70%) block cracking. This CoPACES survey was performed by the Area 4 Maintenance Office of District 5. Historic CoPACES ratings are shown on Chart 1 below. A CoPACES rating of 100 typically denotes recent construction or resurfacing.

Chart 1: CoPACES Ratings from 2010 to 2015



2.5 Existing Pavement Structure

This IPES did not include recovering pavement cores or conducting testing to determine pavement and base thickness or subgrade layer types. Therefore, no analysis of the existing structure for the anticipated traffic loads was performed.

3. Summary and Recommendations

Since cores were not taken, crack depths could not be determined, and in-place base material could not be examined. Therefore, no structural analysis of the existing pavement was performed. For these reasons, no overlay design recommendations are included in this report.

Given the project type and limits, and in compliance with the Plan Development Process, an overlay or mill and inlay is not required to be submitted for approval. However, it should be noted that a limited area of severe distresses exists on the northern bridge approach. Overlay or mill and inlay may not be appropriate at this location. Therefore, a complete pavement evaluation is recommended to be completed for this project.

The following full-depth flexible pavement structure on Table 2 is recommended for all proposed new areas on this project. This is the minimum section for state roads.

Table 2: Full-Depth Pavement Sections

Pay item number	Material	Course	Thickness	Spread rate
402-3102	9.5 mm Superpave	Surface	1.25	135 lbs / yd^2
402-3190	19 mm Superpave	Binder	2.00	220 lbs / yd^2
402-3121	25 mm Superpave	Asphalt Base	3.00	330 lbs / yd^2
310-1101	Graded Aggregate Base	Base	8.00	N/A

4. Other Information

- The use of asphalt mixes recommended in this report meet the "Guidelines for Superpave and Other Mix Type Selection" established on March 18, 2011.
- The design recommendation in this IPES is subject to change if a Final Pavement Evaluation is completed at a later date. Also, additional recommendations may be provided based on the findings of the final pavement evaluation.

If additional information is needed, please contact Phillip Snider of the Pavement Management Branch at (404) 608-4778, or Ian Rish at (404) 608-4849.

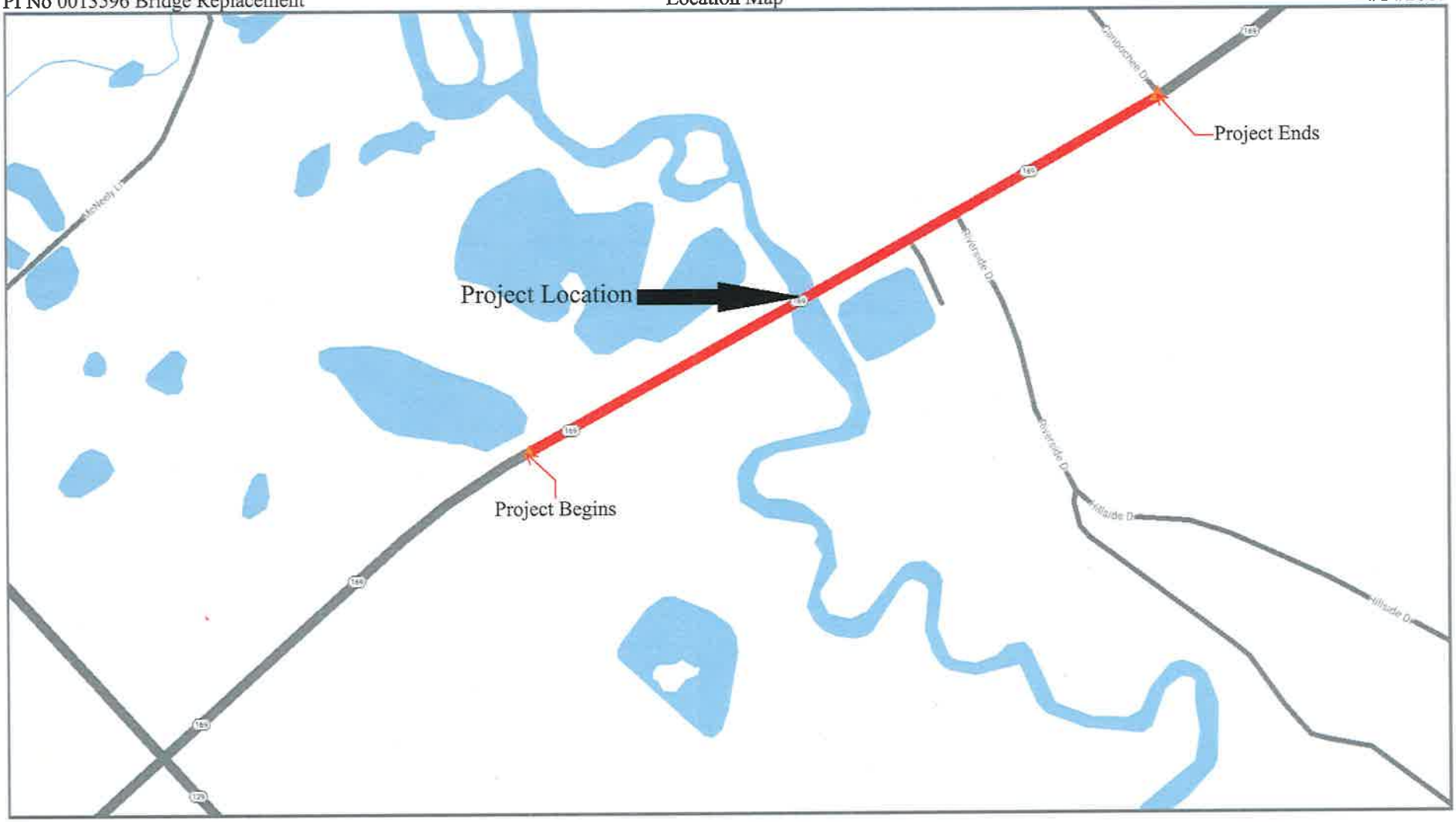
Author: Phillip Snider

Reviewer: Ian Rish, P.E.

PI No 0013596 Bridge Replacement

Location Map

4/14/2017



Block Cracking (1)

Block Cracking (2)

Level 1 Transverse Cracking and Level 1 Load Cracking NBLN

Level 3 Load Cracking SBLN (1)

Level 3 Load Cracking SBLN (2)

Flexible Pavement Design Analysis

PI Number	0013596	**County(s)**	Evans
Project Number		**Design Name**	Full-Depth Design GAB
Project Description	Bridge Replacement		

Traffic Data (AADTs are one-way)						**Miscellaneous Data**	
Initial Design Year	2022	**Initial AADT, VPD**	890	**24 Hour Truck %**	11.50	**Lanes in one direction**	1
Final Design Year	2042	**Final AADT, VPD**	985	**SU Truck %**	6.00	**Curb & Gutter/Barrier**	No
		Mean AADT, VPD	938	**MU Truck %**	5.50		

Design Data					
Lane Distribution Factor (%)	100.00	**Soil Support Value**	4.00	**Single Unit ESAL**	0.40
Terminal Serviceability Index	2.50	**Regional Factor**	1.60	**Multiple Unit ESAL**	1.50
		User Defined 18-KIP ESAL	0.00	**Calculated 18-KIP ESAL**	0.93
Non-Standard Value Comment					

Design Loading (Calculated 18-KIP ESAL)					
Mean AADT, VPD	**LDF (%)**	**Vehicle Type**	**Volume (%)**	**ESAL Factor**	**Daily ESAL**
938	100.00	Single Unit Truck	6.00	0.40	23
		Multi Unit Truck	5.50	1.50	78
				Total Daily ESALs	101
				Total Design Period ESALs	737,300

Proposed Flexible Full Depth Pavement Structure				
Course	**Material**	**Thickness (inches)**	**Structural Coefficient**	**Structural Value**
Course 1	9.5 mm Type II Superpave	1.25	0.4400	0.55
Course 2	19 mm Superpave	2.00	0.4400	0.88
Course 3	25 mm Superpave	1.25	0.4400	0.55
		1.75	0.3000	0.53
Course 4	Graded Aggregate Base	8.00	0.1600	1.28

Required SN 3.54 **Proposed pavement is 6.99% Overdesigned** **Proposed SN** 3.79

Design Remarks	Minimum Section for State Routes

Prepared By 3/31/2017 8:55 AM

Phillip Snider - CE3 **Date**

Recommended By

State Roadway Design Engineer **Date**

Approved By

State Pavement Engineer **Date**

Filename: M:\PavementDesign\Project\PMB Active Projects\Counties - A thru E\Evans\0013596PES\Designs_&_Reports\0013596 Bridge Approach.xlsm

GDOT Pavement Design Tool - Version 2.0

CONCEPT MEETING MINUTES – PI#0013596 Evans County

MEETING INFORMATION

Project: SR 169 @ Canoochee River Bridge Replacement - Evans County

Date: 12 July 2017 **Time:** 1:00 p.m. – 2:00 p.m.

Location: GDOT Dist. 5 Area 4 Office, 17213 U.S. HWY 301 N, Statesboro, GA 30458 & Conference Call

Originator: Brian McHugh, GDOT Program Delivery

Attendees: Brian McHugh, GDOT Program Delivery
Korey Murray, GDOT Dist. 5 Construction
Jerome Sheffield, GDOT Dist. 5 Construction
Steve Price, GDOT Dist. 5 Construction
Donnie Boyd, GDOT TOPS
Billy Dampier, GDOT Dist. 5 Preconstruction
Maggie Yoder, GDOT Dist. 5 Design
Greg Wasdin, GDOT Dist. 5 Utilities
John Royal, GDOT Dist. 5 Utilities
Dallory Rozier, GDOT Dist. 5 Utilities
By phone:
Bryan Williams, GDOT Program Delivery
Ashley Finch, GDOT OES
Matt Sanders, GDOT Engineering Services

SUMMARY

The purpose of this meeting was to discuss the draft concept report for the subject project. Summary highlights of the meeting are included below:

I. Welcome & Introduction – Brian McHugh, GDOT Bridge PMC Project Manger

II. Project Identification – Brian McHugh, GDOT Bridge PMC Project Manager

- Project Description
- Management Let Date 7/15/20
- Federal Funding Z240 on ROW and CST phases.

III. Project Concept Presentation – Maggie Yoder, GDOT District Design

- Ms. Yoder presented the concept layout to the project team and reviewed the project justification statement.
- Ms. Yoder presented the draft concept report to the project team:

CONCEPT MEETING MINUTES – PI#0013596 Evans County

- Structure ID 109-0015-0, built in 1958.
- **Justification:** Existing bridge consists of 11 spans of reinforced concrete deck girders on concrete caps with concrete piles. The project was designed for H-15 vehicles, which is below current design standards. The structure is currently posted for weight conditions and is in fair condition. Super structure is in satisfactory condition with minor cracks. Due to the posting, structural integrity of the bridge and unknown foundation, a replacement of the bridge is recommended.
- **Existing Conditions:** Sufficiency rating of 45.5
- **Other project in the area:** N/A
- **Federal Oversight:** Exempt
- **Projected Traffic:** AADT in 2015 of 1,720 vehicles, 6.0% truck traffic
- **Proposed Project:** The proposed bridge structure will be 36’ wide (gutter to gutter) by approximately 420’ in length. The proposed typical includes two 12’ lanes with 6’ shoulders.
- **Off Site Detour Anticipated:** Yes
- **TMP Required**: No (comment: this needs to be followed up on)

Utility and Property

- Temp State Route not needed
- Railroad coordination not required.
- Utility Involvements include: aerial Canoochee EMC line along the west side of the corridor, an overhead AT&T line also on the west side of the corridor.
- SUE not required.
- Public Interest Determination Policy and Procedure not recommended.
- Proposed ROW width of 170ft.

Environmental & Permits

- NEPA document anticipated
- Project is not located in a MS4 area.

Alternatives Discussion:

- Preferred Alternative is to replace the bridge on existing alignment with an off-site detour.
- Other alternatives considered
  - No Build
  - Alternative 1: Southern realignment of roadway / On-site detour utilizing existing bridge.
  - Alternative 2: Northern realignment of roadway / On-site detour utilizing existing bridge.

IV. Additional Comments from Attendees:

- Local Government Officials and Representatives.
  - County, Sheriff Department and Schools were invited to the meeting but no representatives from Local Government were in attendance.
- Planning: None
- Programming/Financial Management: None
- Engineering Services:
- Traffic Safety & Design
- Environmental
  - Concept Report, Page 6, Env Permits Table, #6 Buffer Variance should be marked “Yes / tentative”,
  - Concept Report, Page 6, Env Permits Table, #12. Other Commitments should be marked “Yes / Seasonal restrictions for Fish Information

- Concept Report, Page 6, Env Permits Table, #13. Other Coordination should be marked “Yes / Burton Park”. Follow up with DNR and Evans County Parks to determine if the boat ramp is permitted use.

- Right of Way:
  - ROW not in attendance.
  - ROW estimates need updating/approval.

V. Sign-in sheets attached

Meeting Subject: SR 169 @ Canoochee River Bridge Replacement - Concept Team

Location: 17213 U.S. HWY 301 North, Statesboro, GA 30458 - Area 4 Office
Time: 1:00 PM
Date: July 12, 2017

SIGN-IN SHEET

Print Name	Signature	Organization	Phone	Email
Brian McHugh		GDOT-OPD	404-514-4882	bmchugh@dot.ga.gov
Korey Murray		GDOT Const.	(912)530-4390	murrayka@dot.ga.gov
Jerome Sheffield		GDOT Const	912-237-3800	jsheffield@dot.ga.gov
Steve Price		GDOT-Const	912-424-9412	stprice@dot.ga.gov.
Donnie		GDOT-TOPS	912-530-4395	DBoyd@DOT.ga.gov
Billy Dampier		GDOT-PreCon	912-269-3297	bdampier@dot.ga.gov
Maggie Yoder		GDOT Design	912-530-4369	myoder@dot.ga.gov
Greg Wasdin		GDOT-Utl	912-530-4468	gwasdin@dot.ga.gov
John Royal		GDOT-Utl	912-530-4485	jroyal@dot.ga.gov
Dallory Rozier		GDOT-UTL	912-530-4407	drozier@dot.ga.gov

Meeting Subject: SR 169 @ Canoochee River Bridge Replacement - Concept Team

Location: 17213 U.S. HWY 301 North, Statesboro, GA 30458 - Area 4 Office
Time: 1:00 PM
Date: July 12, 2017

SIGN-IN SHEET

Print Name	Signature	Organization	Phone	Email
Brian McHugh		GDOT-OPD	404-514-4882	bmchugh@dot.ga.gov
Ashley Finch		GDOT-OES	404-347-0549	AFinch@dot.ga.gov
Matt Sanders		GDOT ENG. SERVICES	404) 631-1752	MSANDERS@dot.ga.gov
Bryan Williams		GDOT - OPD	678-939-0019	bry williams@dot.ga.gov